Amendment to the Claims:

1. (Currently Amended) A method of embedding a signature in an audio-visual signal for authentication of said audio-visual signal, said signal being comprised of a plurality of sequential frames, each of said plurality of sequential frames being comprised of at least two frame portions, the method comprising the steps of:

~~storing~~ loading a first frame portion of a frame of said audio-visual signal in a buffer memory, thereby allowing for a reduced memory requirement relative to storing an entire frame of said audio-visual signal,

calculating a signature based on the ~~stored~~ first frame portion of said frame of said audio-visual signal,

~~storing~~ loading a second frame portion of the frame ~~to replace~~replacing the first frame portion in the buffer memory, the reduced memory requirement being ~~substantially~~ equal [[to a]] in size [[of the]] to a larger of the first frame portion or the second frame portion,

embedding the signature in the second frame portion of the frame [[so]] such that the signature is embedded in a different portion of the frame than a portion of the frame [[for]] on which the signature is ~~generated~~calculated.

2. (Previously Presented) A method according to claim 1, wherein said at least two frame portions of said frame of said audio-visual signal respectively comprise patterns of horizontal lines of said audio-visual signal frame.

3. (Currently Amended) A method according to claim 1, ~~whereby~~ wherein said steps of calculating and embedding are repeated until a said signature is embedded for all regions of said frame.

4. (Cancelled)

5. (Currently Amended) A method according to claim [[4]] 1, ~~whereby~~ wherein said audio-visual signal is an interlaced signal and said first portion

comprises one of all even or odd lines and said second portion comprises all remaining odd or even lines not included in said first portion.

6. (Currently Amended) A method according to claim 1 whereby said audio-visual signal is a non-interlaced signal and said first and second frame portions comprise consecutive slices of said audio-visual signal, wherein each of said consecutive slices are further comprised of ~~at least one~~a group of consecutive [[line]] lines of said frame.

7. (Previously Presented) The method according to claim 1, wherein the embedded signature comprises a watermark.

8. (Original) The method according to claim 7 whereby the watermark is embedded as a spread spectrum watermark.

9. (Original) The method according to claim 7, whereby the watermark is embedded in a different portion of said frame than the portion of said frame for which said signature is generated.

10. (Cancelled)

11. (Previously Presented) The method according to claim 1 whereby the steps of calculating and embedding said signature are performed in real-time.

12-16. (Cancelled)

17. (Previously Presented) The method according to claim 1, wherein the first and second portions are selected based on said audio-visual signal being one of an interlaced or a non-interlaced signal.

18. (Currently Amended) The method according to claim 17, ~~in the case~~wherein said audio-visual signal is said interlaced signal, said first portion

comprising ~~an upper field of said single~~odd lines of the frame of said audio-visual signal and said second portion comprising ~~a lower field~~even lines of the ~~of said single~~ frame of the audio-visual signal.

19. (Currently Amended) The method according to claim [[18]] 17, wherein said ~~upper and lower~~first and second portions each comprise a pattern ~~patterns~~ of horizontal lines of said audio-visual signal, each of said patterns of consecutive horizontal lines having fewer lines than the entire audio-visual signal.

20. (Currently Amended) The method according to claim 17, ~~in the case~~ wherein said audio-visual signal is said non-interlaced signal, said first portion comprising an upper half of said frame of said audio-visual signal and said second portion comprising a lower half of said single frame in the case.

21. (Cancelled)

22. (Currently Amended) An apparatus comprising:

~~configured to~~ an input into which ~~embed a signature in~~ an audio-visual signal is fed from a capture device ~~for authentication of said audio-visual signal~~, said signal being comprised of a plurality of sequential frames, each of said plurality of sequential frames being comprised of at least two frame portions; [[,]] ~~the apparatus comprising~~[[:]]

[[means]] a memory connected with the input for sequentially storing ~~a first portion~~ each of the at least two frame portions of ~~a frame~~ each of the frames of said audio-visual signal ~~in a memory~~, thereby allowing for a reduced memory requirement relative to storing an entire frame of said audio-visual signal[[,]];

a processor programmed to perform the steps of:

~~means for~~ calculating a signature based on ~~the stored~~a first portion of said frame of said audio-visual signal currently stored in the memory, [[and]]

~~means for~~ embedding the signature calculated based on the first frame portion in [[a]] the second frame portion ~~of the frame so~~

stored in the memory subsequently to the first frame portion such that the signature is embedded in a different portion of the frame than a portion of the frame ~~for which the signature is generated, wherein the means for storing has a capacity associated with a size of the first portion or the second portion.~~from which it is calculated; and

an output from which the frames with the embedded signatures are outputted.

23. (Currently Amended) The apparatus of Claim 22, wherein said ~~means for calculating and means for embedding are performed while said first~~ processor further performs the steps of:

while the second frame portion is stored in said memory ~~storage device~~, calculating a signature based on the second frame portion for embedding in a subsequent frame portion to be stored in the memory subsequent to the second frame portion.

24. (Currently Amended) [[An]] The apparatus according to claim 23, wherein said first and second frame portions comprise patterns of horizontal lines of said audio-visual signal, said patterns having fewer lines than the entire audio-visual signal.

25. (Currently Amended) The apparatus according to Claim 22, wherein ~~said apparatus is~~ the capture device includes a camera.

26. (Currently Amended) The apparatus according to Claim 25, wherein the camera is ~~selected from the group consisting of: a surveillance camera, a security camera, a digital video camera and~~ a medical imaging camera.

27. (Currently Amended) ~~A computer readable media having thereon the following computer executable instructions configured for~~ A computer readable medium having thereon computer readable instructions which control one or more computers to perform the steps of:

storing a first portion of a frame of an audio-visual signal, wherein said frame is comprised of at least two frame portions, thereby allowing for a reduced memory requirement,

calculating a signature based on the stored first frame portion, and

embedding the signature in a second frame portion of the frame so that the signature is embedded in a different portion of the frame than a portion of the frame for which the signature is generated, thereby reducing a memory size for authenticating the frame from a size of the frame ~~to substantially a~~ matched in size to the larger of the first frame portion or the second frame portion.

28. (Currently Amended) A method of embedding a signature in an audio-visual signal comprising the acts of:

dividing a frame of the audio-visual signal into ~~substantially~~ equal sized slices;

storing a first slice of the slices in a memory having a capacity which is ~~substantially~~ equal to a size of the [[slice]] largest of the slices;

calculating a first signature based on the first slice stored in the memory;

replacing the first slice in the memory with a second slice for calculating a second signature of the second slice; and

embedding the first signature in the second slice so that a signature is embedded in a different slice than a slice of the frame for which the signature is generated and a memory size for authenticating the frame is reduced from a size of the frame to substantially a size of the ~~first slice~~ largest of the slices.

29. (New) The method according to claim 1, wherein the step of calculating the signature is based on an image property including at least one of DC value, edges, or moments.